

REMARKS

Claims 39-48 and 50-55 remain in the present application for the Examiner's review and consideration, with claims 41, 48 and 50-53 withdrawn as being directed to non-elected species. Claims 1-3, 4-7, 8-38 and 49 were previously canceled. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Claims 39, 40 and 42-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sidles (US 4,888,228). Claims 46, 47 and 55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sidles in view of Ladeur (EP 0 547 533). Claim 54 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sidles in view of Kimbrell, Jr. *et al.* Hence, Sidles forms the basis or the principal basis of all the rejections.

Applicant respectfully disagrees with the Examiner's rejection, because Sidles does not teach all of the steps recited in base claim 39, contrary to the Examiner's multiple statements including the following on page 3 of the Office Action:

The figures of Sidles illustrate the top portion of the fibrous face layer as being embedded in polymeric adhesive. However, Sidles teaches that only at least one side needs to be coated with binder and that when a plurality of plies are stacked together there is binder between layers. Therefore, the top portion of the fibrous layer is substantially free of adhesive.

A closer examination of Sidles shows that all the fibers in the Sidles composite are covered with adhesive, and, consequently, that reference does not teach at least the steps of "selecting a fibrous face layer" and "presenting the substantially adhesive free top surface of the fibrous face layer as a top surface of the composite," as recited in base claim 39. More particularly, Sidles is concerned about getting all of the fibers 30, which include fiber tips 36, tufts 34 and loops 32 (col. 2, lines 15-45), substantially impregnated. Sidles specifically states that "the resulting matrix substantially impregnates the interstices between the fibers of the opposing plies as well as the substrates." (col. 2, lines 5-8) The term "substantially impregnated" is defined on col. 2, line 68 to col. 3, line 4 to mean that "the matrix will substantially fill the interstices between the fibers." These statements can lead to only one conclusion, *i.e.*, all the fibers in the Sidles composite is covered with adhesive.

When discussing coating the substrate on only one side, Sidles explains that when this occurs the interstices between the plies and around all the fibers are saturated (col. 3, lines 46-58

and col. 4, lines 36-49). When only one side is coated, this is the side of one ply that faces the opposing ply. This one coated side becomes an internal boundary of a multi-ply composite. It does not mean that the top surface might be left uncoated with resin. Similarly, when two sides are coated, Sidles means that opposite sides of two adjacent plies, and not the top and bottom surfaces of the composite (col. 3, lines 48-51).

The Sidles reference, at various other locations, discloses matrix-saturated plies wherein an adhesive matrix substantially impregnates the fibers. The Examiner is invited to review column 1, lines 38-42, of Sidles, which disclose, "The improvement in delamination resistance is achieved by constructing the matrix-saturated laminates of plies." (emphasis supplied.) Further, the Examiner is invited to review the last three lines of the Sidles Abstract, which note that heat and pressure "transform the binder to a matrix which substantially saturates the plies." (emphasis supplied.) Similarly, the Examiner is invited to review column 2, lines 60-62, of Sidles, which disclose, "Upon the application of proper conditions, i.e., heat and pressure, the binder 40 sets to form a matrix which substantially impregnates the plies." (emphasis supplied.) Also, the Examiner is invited to review column 4, lines 40-49, and in particular lines 47-49, which disclose, "In general it is desired that the outer surfaces of the outermost plies are saturated in order to avoid the risk of voids in the penultimate layers." (emphasis supplied.) Additionally, the Examiner is invited to review each of the drawings, which all depict that binder 40 forms a matrix that saturates plies 15, 20. Because the literal teaching of Sidles reveals "matrix-saturated plies," all the fibers in the Sidles composite are covered with adhesive, contrary to claim 39's recitation of a fibrous face layer with a substantially adhesive free top surface.

In parent application no. 10/611,769, the Examiner attempted to rebut the aforementioned arguments in an Office Action dated May 29, 2008. In anticipation of a similar rebuttal in the present application, Applicant responds as follows. The Examiner may not reasonably find support for his position in Example 1 and claim 1 of Sidles. The plies or layers in Example 1 are covered with a "pre-preg" both on top and bottom, before any heat and pressure are applied. Further, claim 1 says nothing about leaving fibers in outer layers free of adhesive in the final composite. Moreover, the Examiner may not reasonably find support for his position in the passage that appears at column 2, lines 60-65, because that passage actually teaches a matrix that substantially impregnates the plies (Sidles, col. 2, ln. 61-62). And a person having ordinary skill in the art would interpret the passage's reference to a "binder 40 located between the plies"

(Sidles, col. 2, lines 62-64) to mean that the matrix fills the spaces between the plies, if any, in addition to substantially impregnating the plies themselves.

For all the reasons above, the Sidles reference does not teach at least the steps of “selecting a fibrous face layer” and “presenting the substantially adhesive free top surface of the fibrous face layer as a top surface of the composite,” as recited in base claim 39.

The Examiner acknowledges that Sidles fails to explicitly disclose the depth to which the adhesive layer penetrates the fibrous face layer as recited in claim 39, but asserts that said depth is a result-effective variable affecting the strength of the composite. The Examiner supports his position by citing Sidles, column 3, lines 14-45, but such a citation is inapposite because these lines do not mention anything about adhesive or adhesive penetration. Thus, the penultimate step of claim 39, reciting *inter alia* “the adhesive layer penetrates a distance of about $\frac{1}{4}$ to about $\frac{3}{4}$ of the thickness of the fibrous face layer to anchor the face layer in the adhesive layer” is also not made obvious by Sidles.

For all the reasons above, independent claim 39 is patentable over Sidles. Claims 40, 42-45, 46, 47, 54 and 55 depend upon allowable claim 39 and add further limitations, and are patentable for that reason alone over Sidles singly or in combination with Ladeur or Kimbrell. It should also be noted that Ladeur, which is used to support the rejection of dependent claims 46, 47 and 55, are not pertinent to said claims. Ladeur does not teach or suggest the use of gathered fabrics as asserted by the Examiner. The Examiner equates consolidated fabrics with gathered fabrics, but there is no equivalence between the two types of fabric, because “consolidated” means pressed down and not gathered sidewise. Moreover, neither Ladeur nor Kimbrell overcome the deficiencies of Sidles. Applicant reserves the right to further support the patentability of these dependent claims, should that become necessary.

Conclusion

The Examiner is invited to consider the prior art of record that has already been submitted in connection with parent application no. 10/611,769. Section 609.02 of the Manual of Patent Examining Procedure provides that “[t]he examiner will consider information which has been considered by the Office in a parent application when examining... a continuation-in-part application filed under 37 CFR 1.53(b)....A listing of the information need not be resubmitted in the continuing application unless the applicant desires the information to be printed on the

patent.” Accordingly, Applicant has not resubmitted any Information Disclosure Statement already submitted in connection with the the parent application.

In light of the preceding, Applicant believes that the presently pending claims are in condition for allowance, early notice of which would be greatly appreciated. The Examiner is invited to telephone the undersigned attorney of record if he believes that such a call would materially advance the prosecution and eventual allowance of the present application.

It is not believed that any fees are required with the submission of this response. However, if any fees are due, the Commissioner may charge appropriate fees to The H.T. Than Law Group, Deposit Account No. 50-1980, and if any extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a).

Respectfully submitted,

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